Introductory Matter and Framing By Dallas Burtraw and Ann Carlson September 21, 2018

In 2017, the California Legislature and Governor Edmund G. Brown, Jr. directed the development of the Independent Emissions Market Advisory Committee (IEMAC or Committee) through the passage of Assembly Bill (AB) 398. The provisions specific to the Committee are set out in the Health and Safety Code, Section 38591.2.

The statute established the IEMAC within the California Environmental Protection Agency (CalEPA) through January 1, 2031. IEMAC members include at least five experts on emissions trading market design appointed by the Governor (three members), the Senate Committee on Rules (one member), and the Speaker of the Assembly (one member). Membership also includes a representative from the Legislative Analyst's Office.

Committee members must all possess academic, nonprofit, and other relevant backgrounds and lack financial conflicts of interest with entities subject to the cap-and-trade regulations adopted by the California Air Resources Board (CARB). Statute requires at least one annual public meeting and a report to both CARB and the Joint Legislative Committee on Climate Change Policies on the environmental and economic performance of the cap-and-trade regulation and other relevant climate policies¹.

Summary of the Committee Research and Recommendations

The role of the IEMAC as outlined by AB 398 is to monitor the environmental and economic performance of the state's carbon markets. This report presents six reviews, conducted in subcommittees, of issue areas that affect the performance of the market. The reviews cover environmental justice, leakage, offsets, managing allowance supply, price ceilings, and overlapping policies. In this summary, we highlight several recommendations to CARB about data collection, reporting and analysis that the committees believe would help ensure the integrity of California's emissions reduction efforts and help inform regulatory choices. In some of the subcommittee reports we also comment on CARB's proposed regulations for the cap-and-trade market. We first offer several overarching comments focused on big design issues facing CARB in shaping the cap-and-trade market post-2020 and in evaluating the state's efforts to date.

Program Design

We begin with three important principles. First, it is crucial that decarbonization of the state's economy not interfere with California's economic growth and that the state continues the trend of decoupling greenhouse gas emissions from economic activity.

¹ Statute also requires CARB to consult with the IEMAC and report to the Legislature in the event of specified cap-and-trade auction outcomes.

Ensuring that our climate policies are as cost-effective as possible (consistent with other goals) is important to achieving this outcome. Second, the programs the state has adopted to reduce our GHG emissions – both legislatively and administratively – must be administered in ways that maximize benefits to all Californians, particularly those in disadvantaged and vulnerable communities. And third, the state's programs to reduce emissions must be designed to maximize environmental integrity – to produce real, verifiable emissions reductions that help reduce overall global emissions. As the state's emissions targets ratchet down and the state aims to achieve carbon neutrality by 2045², achieving cost-effective reductions that have environmental integrity and produce benefits to all Californians will become tougher. Our aim in this report is to begin to evaluate areas of carbon market design with these background principles in mind.

Our subcommittee reports are worth reading in their entirety but below we summarize our key recommendations. Most of our recommendations ask CARB to gather – either directly or through independent research –information and analysis that would cast light on potential problem areas identified by the subcommittees. In some cases, this information may exist and we welcome direction to that information; in other cases, there may be opportunities for improvement of existing information or new analysis is needed. Some of our recommendations suggest changes to the draft cap-and-trade regulations CARB issued on September 4, 2018.

Subcommittee Report on Environmental Justice

Demonstrate that any carbon mitigation that occurs outside of California does not detract from environmental quality improvements in environmental justice communities (EJ at 3).

Subcommittee Report on Leakage

Continue to evaluate how in-state production, imports and exports are responding to policy-induced increases in operating costs in order to inform our understanding of leakage potential across affected sectors; (Leakage at 3);

Analyze how to refine and improve the current approach to calibrating and conferring leakage mitigation compensation in order to improve efficiency and distributional fairness (Leakage at 3);

Analyze the effects of Community Choice Aggregate procurement of renewable resources on the potential for resource shuffling in the cap-and-trade market (Leakage at 5)

Analyze why the electricity import data from CARB and from the Energy Commission appear to be diverging, especially with respect to unspecified power - one issue is whether differences in data reporting could enable analysts to evaluate whether a

² https://www.gov.ca.gov/wp-content/uploads/2018/09/9.10.18-Executive-Order.pdf

default emissions factor for unspecified power is altering market participant behavior in response to the incentives created by the choice of default emissions factors. (Leakage at 7)

Evaluate and analyze CARB's proposal for the Q2 2019 and beyond Energy Imbalance Market (EIM)-wide emissions leakage factor, and analyze (under both the current status quo and the proposed changes) whether the unspecified emissions factor is set at an appropriate level. (Leakage at 9)

The Leakage report contains several specific recommendations about the kinds of data necessary to complete these analyses on page 12 of the report.

Subcommittee Report on Offsets

Determine whether the buffer account for unintended losses of protected forest assets is sufficient given the effects of recent droughts and wildfires. (Offsets at 3)

Determine whether the leakage factor used for Improved Forest Management projects under the U.S. Forestry protocol is appropriate and whether CARB should amend the leakage factor to reflect changes in the leakage factors made in the Climate Action Reserve U.S. Forestry offset protocol. (Offsets at 4)

Clarify – in Section 95989 of the proposed regulations – that out-of-state offset projects that produce water pollution benefits should demonstrate that such benefits cannot rely only on reduced or avoided GHGs but also an additional air or water pollutant that "could have an adverse impact on waters of the state." (Offsets at 5).

Determine the degree to which offsets that satisfy the Direct Environmental Benefit requirement will be available in the post-2020 period and whether such offsets will provide cost-containment. (Offsets at 5).

Subcommittee Report on Managing Allowance Supply

Improve and increase program reporting on allowance holdings by jurisdictional type; develop reporting that includes the number, vintage and jurisdictional totals of banked allowances at the end of each three-year compliance period but also that tracks banking annually; and report data on secondary spot market prices. (Supply at 6)

Develop a report on the effects of Ontario's withdrawal on allowance supply and related issues. (Supply at 6)

Develop a report on options for managing allowance supply, including possible adjustments to the price floor, price (and possibly emissions) containment points, and offsets regulations; replacing Ontario allowances with California allowances; cancellation or transfers of allowances; comparisons of automatic rule-based adjustments to market supplies versus administration interventions and any implications for linkage arrangements. (Supply at 6).

Subcommittee Report on the Price Ceiling

Consider designing a program in advance to develop a reserve of potential emissions outside the cap in the event that the price ceiling is breached. (Price Ceiling at 2)

Include the social cost of carbon values in the analysis to inform the determination of price tiers and the price ceiling in CARB's modeling. (Price Ceiling at 2)

Ensure that in evaluating and setting the price ceiling, the primary focus for CARB should be whether our environmental goals will be achieved, not the amount of revenue the cap-and-trade program produces. (Price Ceiling at 3)

Subcommittee Report on Overlapping Policies

Analyze the relative costs of various policies that overlap with cap-and-trade, including the Renewable Portfolio Standard (RPS), energy efficiency programs and the auto standards. Develop estimates about whether and how these policies put downward pressure on allowance prices and determine whether there are design choices that could alleviate such pressure. (Overlapping at 3)

Develop alternatives to the tailpipe standards in the event that California either loses the right to regulate tailpipe emissions or is significantly delayed in doing so. (Overlapping at 4).

Looking Forward

We appreciate the hard work and dedication of the staff of CARB, under the leadership and direction of the Executive Officer, the CARB Board and its Chair. Their work to date has produced emissions reductions that have met the 2020 GHG emissions cap four years early at the same time that California has led the country in economic growth. Our recommendations intend to assist the Board in the next phase of program implementation, as we work collectively to ensure that California meets its ambitious climate goals with environmental integrity, with environmental justice, and in a way that continues to contribute to California's economic health.